

Organization Bldg./Room
U. S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE
WASHINGTON, DC 20231
IF UNDELIVERABLE RETURN IN TEN DAYS

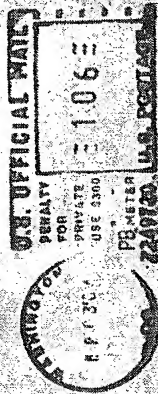
OFFICIAL BUSINESS

AN EQUAL OPPORTUNITY EMPLOYER

APPL NO	FILING OR 371 (c) DATE	ART UNIT	FIL FEE REC'D	ATTY DOCKET
10/647,519	08/26/2003	1644	501	2314-268

6449
ROTHWELL, FIGG, ERNST & MANBECK, P.C.
1425 K STREET, N.W.
SUITE 800

JC-404





UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
 United States Patent and Trademark Office
 Address: COMMISSIONER FOR PATENTS
 P.O. Box 1450
 Alexandria, Virginia 22313-1450
 www.uspto.gov

APPL NO.	FILING OR 371 (c) DATE	ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	DRAWINGS	TOT CLMS	IND CLMS
10/647,519	08/26/2003	1644	501	2314-269	48	20	6

CONFIRMATION NO. 5270

6449

ROTHWELL, FIGG, ERNST & MANBECK, P.C.
 1425 K STREET, N.W.
 SUITE 800
 WASHINGTON, DC 20005



OC000000012014126

Date Mailed: 03/03/2004

Receipt is acknowledged of this regular Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Filing Receipt Corrections, facsimile number 703-746-9195. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).**

Applicant(s)

Michael M. Fainzilber, Haifa, ISRAEL;
 Karel S. Kits, Amsterdam, NETHERLANDS;
 Alma L. Burlingame, Sausalito, CA;
 Baldomero M. Olivera, Salt Lake City, UT;
 Craig Walker, Salt Lake City, UT;
 Maren Watkins, Salt Lake City, UT;
 Reshma Shetty, Salt Lake City, UT;
 Lourdes J. Cruz, Manila, PHILIPPINES;
 Julita Imperial, Salt Lake City, UT;
 Clark Colledge, Draper, UT;

Assignment For Published Patent Application

Cognetix Inc., Salt Lake City, UT;
 University of Utah Research Foundation, Salt Lake City, UT;

Domestic Priority data as claimed by applicant

This application is a CON of 09/210,952 12/15/1998 PAT 6,624,288
 which claims benefit of 60/069,706 12/16/1997

Foreign Applications

If Required, Foreign Filing License Granted: 01/12/2004

Projected Publication Date: To Be Determined - pending completion of Sequence Disclosures

Early Publication Request: No

**** SMALL ENTITY ****

Title

Gamma-conopeptides

Preliminary Class

530

**LICENSE FOR FOREIGN FILING UNDER
Title 35, United States Code, Section 184
Title 37, Code of Federal Regulations, 5.11 & 5.15**

GRANTED

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Office of Export Administration, Department of Commerce (15 CFR 370.10 (j)); the Office of Foreign Assets Control, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
 United States Patent and Trademark Office
 Address: COMMISSIONER FOR PATENTS
 P.O. Box 1450
 Alexandria, Virginia 22313-1450
 www.uspto.gov

APPLICATION NUMBER	FILING OR 371 (c) DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NUMBER
10/647,519	08/26/2003	Michael M. Fainzilber	2314-269

CONFIRMATION NO. 5270

6449

ROTHWELL, FIGG, ERNST & MANBECK, P.C.
 1425 K STREET, N.W.
 SUITE 800
 WASHINGTON, DC 20005

FORMALITIES LETTER



OC000000012014125

Date Mailed: 03/03/2004

NOTICE TO COMPLY WITH REQUIREMENTS FOR PATENT APPLICATIONS CONTAINING NUCLEOTIDE SEQUENCE AND/OR AMINO ACID SEQUENCE DISCLOSURES

Filing Date Granted

Applicant is given **TWO MONTHS FROM THE DATE OF THIS NOTICE** within which to file the items indicated below to avoid abandonment. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

- A copy of the "Sequence Listing" in computer readable form has been submitted. However, the content of the computer readable form does not comply with the requirements of 37 CFR 1.822 and/or 1.823, as indicated on the attached copy of the marked -up "Raw Sequence Listing." Applicant must provide a substitute computer readable form (CRF) copy of the "Sequence Listing" and a statement that the content of the sequence listing information recorded in computer readable form is identical to the written (on paper or compact disc) sequence listing and, where applicable, includes no new matter, as required by 37 CFR 1.821(e), 1.821(f), 1.821(g), 1.825(b), or 1.825(d).

For questions regarding compliance to these requirements, please contact:

- For Rules Interpretation, call (703) 308-4216
- To Purchase PatentIn Software, call (703) 306-2600
- For PatentIn Software Program Help, call (703) 306-4119 or e-mail at patin21help@uspto.gov or patin3help@uspto.gov

Replies should be mailed to: Mail Stop Missing Parts
 Commissioner for Patents
 P.O. Box 1450
 Alexandria VA 22313-1450

*A copy of this notice **MUST** be returned with the reply.*

Z. Araya

Customer Service Center

Initial Patent Examination Division (703) 308-1202

PART 1 - ATTORNEY/APPLICANT COPY



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
 United States Patent and Trademark Office
 Address: COMMISSIONER FOR PATENTS
 P.O. Box 1450
 Alexandria, Virginia 22313-1450
 www.uspto.gov

APPLICATION NUMBER	FILING OR 371 (c) DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NUMBER
10/647,519	08/26/2003	Michael M. Fainzilber	2314-269

CONFIRMATION NO. 5270

6449

ROTHWELL, FIGG, ERNST & MANBECK, P.C.
 1425 K STREET, N.W.
 SUITE 800
 WASHINGTON, DC 20005

FORMALITIES LETTER



OC000000012014125

Date Mailed: 03/03/2004

NOTICE TO COMPLY WITH REQUIREMENTS FOR PATENT APPLICATIONS CONTAINING NUCLEOTIDE SEQUENCE AND/OR AMINO ACID SEQUENCE DISCLOSURES

Filing Date Granted

Applicant is given **TWO MONTHS FROM THE DATE OF THIS NOTICE** within which to file the items indicated below to avoid abandonment. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

- A copy of the "Sequence Listing" in computer readable form has been submitted. However, the content of the computer readable form does not comply with the requirements of 37 CFR 1.822 and/or 1.823, as indicated on the attached copy of the marked -up "Raw Sequence Listing." Applicant must provide a substitute computer readable form (CRF) copy of the "Sequence Listing" and a statement that the content of the sequence listing information recorded in computer readable form is identical to the written (on paper or compact disc) sequence listing and, where applicable, includes no new matter, as required by 37 CFR 1.821(e), 1.821(f), 1.821(g), 1.825(b), or 1.825(d).

For questions regarding compliance to these requirements, please contact:

- For Rules Interpretation, call (703) 308-4216
- To Purchase PatentIn Software, call (703) 306-2600
- For PatentIn Software Program Help, call (703) 306-4119 or e-mail at patin21help@uspto.gov or patin3help@uspto.gov

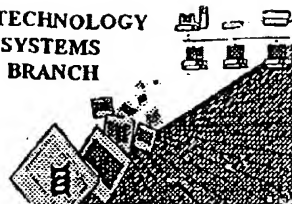
Replies should be mailed to: Mail Stop Missing Parts
 Commissioner for Patents
 P.O. Box 1450
 Alexandria VA 22313-1450

*A copy of this notice **MUST** be returned with the reply.*

2. Araya
Customer Service Center

Initial Patent Examination Division (703) 308-1202

PART 2 - COPY TO BE RETURNED WITH RESPONSE



RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/647,519
Source: IFWO
Date Processed by STIC: 2/13/04

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 703-308-4212; FAX: 703-308-4221

Effective 12/13/03: TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 4.1 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker/chkr41note.htm>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/efb/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry directly to (EFFECTIVE 12/01/03):
U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office, Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 10/08/03



IFWO

RAW SEQUENCE LISTING

DATE: 02/13/2004

PATENT APPLICATION: US/10/647,519

TIME: 12:04:44

Input Set : A:\2314-269seq.txt

Output Set: N:\CRF4\02132004\J647519.raw

3 <110> APPLICANT: Fainzilber, Michael M.
 4 Kits, Karel S.
 5 Burlingame, Alma L.
 6 Olivera, Baldomero M.
 7 Walker, Craig
 8 Watkins, Maren
 9 Shetty, Reshma
 10 Cruz, Lourdes J.
 11 Imperial, Julita
 12 Colledge, Clark
 13 University of Utah Resarch Foundation
 14 Vrije Universiteit
 15 Regents of the University of California
 17 <120> TITLE OF INVENTION: Gamma-Conopeptides
 19 <130> FILE REFERENCE: 2314-147-sq2
 C--> 21 <140> CURRENT APPLICATION NUMBER: US/10/647,519
 C--> 22 <141> CURRENT FILING DATE: 2003-08-26
 24 <150> PRIOR APPLICATION NUMBER: US 60/069,706
 25 <151> PRIOR FILING DATE: 1997-12-16
 27 <160> NUMBER OF SEQ ID NOS: 47
 29 <170> SOFTWARE: PatentIn Ver. 2.0
 31 <210> SEQ ID NO: 1
 32 <211> LENGTH: 42
 33 <212> TYPE: PRT
 34 <213> ORGANISM: Artificial Sequence
 36 <220> FEATURE:
 37 <223> OTHER INFORMATION: Description of Artificial Sequence:generic formula
 38 of gamma-conopeptides
 40 <220> FEATURE:
 41 <221> NAME/KEY: PEPTIDE
 42 <222> LOCATION: (1)..(13)
 43 <223> OTHER INFORMATION: Xaa at residues 1, 2, 3, 4, 5, and 6 may be
 44 des-Xaa or any amino acid; Xaa at residues 8, 9,
 45 10, 11 and 12 may be any amino acid; Xaa at
 46 residue 13 may be des-Xaa or any amino acid.
 48 <220> FEATURE:
 49 <221> NAME/KEY: PEPTIDE
 50 <222> LOCATION: (15)..(19)
 51 <223> OTHER INFORMATION: Xaa at residues 15, 16, 17 and 18 may be any amino
 52 acid; Xaa at residue 19 is Glu,
 53 gamma-carboxyglutamate or Gln.
 55 <220> FEATURE:
 56 <221> NAME/KEY: PEPTIDE

pg. 6
 Does Not Comply
 Corrected Diskette Needed
 (pg. 7-9)

RAW SEQUENCE LISTING

DATE: 02/13/2004

PATENT APPLICATION: US/10/647,519

TIME: 12:04:44

Input Set : A:\2314-269seq.txt

Output Set: N:\CRF4\02132004\J647519.raw

57 <222> LOCATION: (22)..(28)
58 <223> OTHER INFORMATION: Xaa at residues 22, 23 and 24 may be any amino
59 acid; Xaa at residue 25 may be des-Xaa or any
60 amino acid; Xaa at residues 27, 28 and 29 may be
61 any amino acid.
63 <220> FEATURE:
64 <221> NAME/KEY: PEPTIDE
65 <222> LOCATION: (30)..(42)
66 <223> OTHER INFORMATION: Xaa at residues 30, 31 and 32 may be des-Xaa or
67 any amino acid; Xaa at residues 34, 35, 36, 37,
68 38, 39, 40, 41 and 42 may be des-Xaa or any amino
69 acid.
71 <400> SEQUENCE: 1
W--> 72 Xaa Xaa Xaa Xaa Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa Xaa Cys Xaa Xaa
73 1 5 10 15
75 Xaa Xaa Xaa Cys Cys Xaa Xaa Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa Xaa
76 20 25 30
78 Cys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
79 35 40
82 <210> SEQ ID NO: 2
83 <211> LENGTH: 42
84 <212> TYPE: PRT
85 <213> ORGANISM: Artificial Sequence
87 <220> FEATURE:
88 <223> OTHER INFORMATION: Description of Artificial Sequence:generic
89 sequence of gamma-conopeptides.
91 <220> FEATURE:
92 <221> NAME/KEY: PEPTIDE
93 <222> LOCATION: (1)..(13)
94 <223> OTHER INFORMATION: Xaa at residues 1, 2, 3, 4, 5 and 6 may be des-Xaa
95 or any amino acid; Xaa at residues 8, 9, 10, 11
96 and 12 may be any amino acid; Xaa at residue 13
97 may be des-Xaa or any amino acid.
99 <220> FEATURE:
100 <221> NAME/KEY: PEPTIDE
101 <222> LOCATION: (15)..(22)
102 <223> OTHER INFORMATION: Xaa at residues 15, 16, 17 and 18 may be any amino
103 acid; Xaa at residue 19 is Glu,
104 gamma-carboxyglutamate or Gln; Xaa at residue 22
105 is Ser or Thr.
107 <220> FEATURE:
108 <221> NAME/KEY: PEPTIDE
109 <222> LOCATION: (23)..(29)
110 <223> OTHER INFORMATION: Xaa at residues 23 and 24 may be any amino acid;
111 Xaa at residue 25 may be des-Xaa or any amino
112 acid; Xaa at residues 27, 28 and 29 may be any
113 amino acid.
115 <220> FEATURE:
116 <221> NAME/KEY: PEPTIDE

RAW SEQUENCE LISTING

DATE: 02/13/2004

PATENT APPLICATION: US/10/647,519

TIME: 12:04:44

Input Set : A:\2314-269seq.txt

Output Set: N:\CRF4\02132004\J647519.raw

117 <222> LOCATION: (30)..(42)

118 <223> OTHER INFORMATION: Xaa at residues 30, 31 and 32 may be des-Xaa or
 119 any amino acid; Xaa at residues 34, 35, 36, 37,
 120 38, 39, 40, 41 and 42 may be des-Xaa or any amino
 121 acid.

123 <400> SEQUENCE: 2

W--> 124 Xaa Xaa Xaa Xaa Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa Xaa Cys Xaa Xaa
 125 1 5 10 15
 127 Xaa Xaa Xaa Cys Cys Xaa Xaa Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa
 128 20 25 30
 130 Cys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 131 35 40

134 <210> SEQ ID NO: 3

135 <211> LENGTH: 39

136 <212> TYPE: PRT

137 <213> ORGANISM: Artificial Sequence

139 <220> FEATURE:

140 <223> OTHER INFORMATION: Description of Artificial Sequence:generic formula
 141 of gamma-conopeptides

143 <220> FEATURE:

144 <221> NAME/KEY: PEPTIDE

145 <222> LOCATION: (1)..(13)

146 <223> OTHER INFORMATION: Xaa at residue 1 is any amino acid; Xaa at
 147 residues 2, 3, 4, 5 and 6 may be des-Xaa or any
 148 amino acid; Xaa at residues 8, 9, 10, 11, 12 and
 149 13 may be any amino acid.

151 <220> FEATURE:

152 <221> NAME/KEY: PEPTIDE

153 <222> LOCATION: (27)..(39)

154 <223> OTHER INFORMATION: Xaa at residues 27, 28, 29, 31, 32, 33, 34, 35, 36
 155 and 37 may be any amino acid; Xaa at residues 38
 156 and 39 may be des-Xaa or any amino acid.

158 <220> FEATURE:

159 <221> NAME/KEY: PEPTIDE

160 <222> LOCATION: (15)..(19)

161 <223> OTHER INFORMATION: Xaa at residues 15, 16, 17 and 18 may be any amino
 162 acid; Xaa at residue 19 is Glu or
 163 gamma-carboxyglutamate.

165 <400> SEQUENCE: 3

W--> 166 Xaa Xaa Xaa Xaa Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa Xaa Cys Xaa Xaa
 167 1 5 10 15
 169 Xaa Xaa Xaa Cys Cys Ser Asn Ser Cys Asp Xaa Xaa Xaa Cys Xaa Xaa
 170 20 25 30
 172 Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 173 35

176 <210> SEQ ID NO: 4

177 <211> LENGTH: 39

178 <212> TYPE: PRT

179 <213> ORGANISM: Artificial Sequence

RAW SEQUENCE LISTING

DATE: 02/13/2004

PATENT APPLICATION: US/10/647,519

TIME: 12:04:44

Input Set : A:\2314-269seq.txt

Output Set: N:\CRF4\02132004\J647519.raw

181 <220> FEATURE:

182 <223> OTHER INFORMATION: Description of Artificial Sequence:generic
183 sequence of gamma-conopeptides.

185 <220> FEATURE:

186 <221> NAME/KEY: PEPTIDE

187 <222> LOCATION: (1)..(13)

188 <223> OTHER INFORMATION: Xaa at residue 1 is any amino acid; Xaa at
189 residues 2, 3, 4, 5 and 6 may be des-Xaa or any
190 amino acid; Xaa at residues 8, 9, 10, 11, 12 and
191 13 may be any amino acid.

193 <220> FEATURE:

194 <221> NAME/KEY: PEPTIDE

195 <222> LOCATION: (15)..(19)

196 <223> OTHER INFORMATION: Xaa at residue 15 is Ser or Thr; Xaa at residues
197 16, 17 and 18 may be any amino acid; Xaa at
198 residue 19 is Glu or gamma-carboxyglutamate.

200 <220> FEATURE:

201 <221> NAME/KEY: PEPTIDE

202 <222> LOCATION: (27)..(39)

203 <223> OTHER INFORMATION: Xaa at residues 27, 28, 29, 31, 32, 33, 34, 35, 36
204 and 37 may be any amino acid; Xaa at residues 38
205 and 39 may be des-Xaa or any amino acid.

207 <400> SEQUENCE: 4

W--> 208 Xaa Xaa Xaa Xaa Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa Cys Xaa Xaa

209 1 5 10 15

211 Xaa Xaa Xaa Cys Cys Ser Asn Ser Cys Asp Xaa Xaa Xaa Cys Xaa Xaa

212 20 25 30

214 Xaa Xaa Xaa Xaa Xaa Xaa Xaa

215 35

218 <210> SEQ ID NO: 5

219 <211> LENGTH: 34

220 <212> TYPE: PRT

221 <213> ORGANISM: Artificial Sequence

223 <220> FEATURE:

224 <223> OTHER INFORMATION: Description of Artificial Sequence:generic
225 sequence of gamma-conopeptides.

227 <220> FEATURE:

228 <221> NAME/KEY: PEPTIDE

229 <222> LOCATION: (1)..(6)

230 <223> OTHER INFORMATION: Xaa at residues 1 and 2 may be des-Xaa or any
231 amino acid; Xaa at residue 3 is Asp, Glu or
232 gamma-carboxyglutamate; Xaa at residues 5 and 6
233 may be any amino acid.

235 <220> FEATURE:

236 <221> NAME/KEY: PEPTIDE

237 <222> LOCATION: (7)..(16)

238 <223> OTHER INFORMATION: Xaa at residue 7 is Trp or 6-bromo-Trp; Xaa at
239 residues 9, 10, 13 and 14 may be any amino acid;
240 Xaa at residue 16 is Glu or

RAW SEQUENCE LISTING

DATE: 02/13/2004

PATENT APPLICATION: US/10/647,519

TIME: 12:04:44

Input Set : A:\2314-269seq.txt

Output Set: N:\CRF4\02132004\J647519.raw

241 gamma-carboxyglutamate.
 243 <220> FEATURE:
 244 <221> NAME/KEY: PEPTIDE
 245 <222> LOCATION: (28)..(34)
 246 <223> OTHER INFORMATION: Xaa at residues 28, 30, 31, 32, 33 and 34 may be
 247 any amino acid.
 249 <400> SEQUENCE: 5
W--> 250 Xaa Xaa Xaa Cys Xaa Xaa Phe Xaa Xaa Cys Thr Xaa Xaa Ser Xaa
 251 1 5 10 15
 253 Cys Cys Ser Asn Ser Cys Asp Gln Thr Tyr Cys Xaa Leu Xaa Xaa Xaa
 254 20 25 30
 256 Xaa Xaa
 260 <210> SEQ ID NO: 6
 261 <211> LENGTH: 32
 262 <212> TYPE: PRT
 263 <213> ORGANISM: Conus pennaceus
 265 <220> FEATURE:
 266 <221> NAME/KEY: PEPTIDE
 267 <222> LOCATION: (1)..(31)
 268 <223> OTHER INFORMATION: Xaa at residue 5 is Trp or 6-bromo-Trp; Xaa at
 269 residues 14 and 26 are Glu or
 270 gamma-carboxyglutamate; Xaa at residue 31 is Pro
 271 or hydroxy-Pro.
 273 <400> SEQUENCE: 6
W--> 274 Asp Cys Thr Ser Xaa Phe Gly Arg Cys Thr Val Asn Ser Xaa Cys Cys
 275 1 5 10 15
 277 Ser Asn Ser Cys Asp Gln Thr Tyr Cys Xaa Leu Tyr Ala Phe Xaa Ser
 278 20 25 30
 284 <210> SEQ ID NO: 7
 285 <211> LENGTH: 34
 286 <212> TYPE: PRT
 287 <213> ORGANISM: Conus textile
 289 <220> FEATURE:
 290 <221> NAME/KEY: PEPTIDE
 291 <222> LOCATION: (1)..(34)
 292 <223> OTHER INFORMATION: Xaa at residues 1, 7 and 34 are Trp or
 293 6-bromo-Trp; Xaa at residues 3 and 16 are Glu or
 294 gamma-carboxyglutamate; Xaa at residues 31 and 32
 295 are Pro or hydroxy-Pro.
 297 <400> SEQUENCE: 7
W--> 298 Xaa Leu Xaa Cys Ser Val Xaa Phe Ser His Cys Thr Lys Asp Ser Xaa
 299 1 5 10 15
 301 Cys Cys Ser Asn Ser Cys Asp Gln Thr Tyr Cys Thr Leu Met Xaa Xaa
 302 20 25 30
 304 Asp Xaa
 308 <210> SEQ ID NO: 8
 309 <211> LENGTH: 39
 310 <212> TYPE: PRT
 311 <213> ORGANISM: Conus textile

RAW SEQUENCE LISTING ERROR SUMMARY
 PATENT APPLICATION: US/10/647,519

DATE: 02/13/2004
 TIME: 12:04:45

Input Set : A:\2314-269seq.txt
 Output Set: N:\CRF4\02132004\J647519.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; Xaa Pos. 1,2,3,4,5,6,8,9,10,11,12,13,15,16,17,18,19,22,23,24,25,27 ✓
 Seq#:1; Xaa Pos. 28,29,30,31,32,34,35,36,37,38,39,40,41,42 ✓
 Seq#:2; Xaa Pos. 1,2,3,4,5,6,8,9,10,11,12,13,15,16,17,18,19,22,23,24,25,27 ✓
 Seq#:2; Xaa Pos. 28,29,30,31,32,34,35,36,37,38,39,40,41,42 ✓
 Seq#:3; Xaa Pos. 1,2,3,4,5,6,8,9,10,11,12,13,15,16,17,18,19,27,28,29,31,32 ✓
 Seq#:3; Xaa Pos. 33,34,35,36,37,38,39 ✓
 Seq#:4; Xaa Pos. 1,2,3,4,5,6,8,9,10,11,12,13,15,16,17,18,19,27,28,29,31,32 ✓
 Seq#:4; Xaa Pos. 33,34,35,36,37,38,39 ✓
 Seq#:5; Xaa Pos. 1,2,3,5,6,7,9,10,13,14,16,28,30,31,32,33,34 ✓
 Seq#:6; Xaa Pos. 5,14,26,34 ✓
 Seq#:7; Xaa Pos. 1,3,7,16,31,32,34 ✓
 Seq#:8; Xaa Pos. 1,2,4,10,19,31,34,36,37,39 ✓
 Seq#:9; Xaa Pos. 9,13,17 ✓
 Seq#:10; Xaa Pos. 2,3,10,12,18,26,32,33 ✓
 Seq#:11; Xaa Pos. 3,5,16,18,22,25,31 ✓
 Seq#:12; Xaa Pos. 1,5,8,11 ✓
 Seq#:13; Xaa Pos. 5,8,10,15,16,23 ✓
 Seq#:14; Xaa Pos. 4,9,12,13,17 ✓
 Seq#:15; Xaa Pos. 8,15,16 ✓
 Seq#:24; N Pos. 17 ✓
 Seq#:36; Xaa Pos. 3,7,8,14,18 ✓
 Seq#:37; Xaa Pos. 1 ✓
 Seq#:39; N Pos. 12 ✓
 Seq#:41; N Pos. 6,9,12,15,18,21,24 ✓
 Seq#:42; Xaa Pos. 14,26,31 ✓
 Seq#:43; Xaa Pos. 9,13 ✓
 Seq#:44; Xaa Pos. 2 ✓
 Seq#:45; Xaa Pos. 1,6,7,8,12,17,18,23 ✓

10/6/77, 519
Page 7

<210> SEQ ID NO 24
<211> LENGTH: 533
<212> TYPE: DNA
<213> ORGANISM: Conus textile
<220> FEATURE:
<221> NAME/KEY: CDS
<222> LOCATION: (110)..(337)
<400> SEQUENCE: 24

ctctgccggt tgaca^otca tctactctct cagtctccct gacagctgcc ttcagtcgac 60

mandatory, please
explain "N" locations.

please see error
explanation
on page 8.

The type of errors shown exist throughout
the Sequence Listing. Please check subsequent
sequences for similar errors.

Seq. (39, 41)

VARIABLE LOCATION SUMMARY

DATE: 02/13/2004

PATENT APPLICATION: US/10/647,519

TIME: 12:04:45

Input Set : A:\2314-269seq.txt

Output Set: N:\CRF4\02132004\J647519.raw

Use of n's or Xaa's (NEW RULES):

Use of n's and/or Xaa's have been detected in the Sequence Listing.

Use of <220> to <223> is MANDATORY if n's or Xaa's are present.
 in <220> to <223> section, please explain location of n or Xaa, and which
 residue n or Xaa represents.

Seq#:1; Xaa Pos. 1,2,3,4,5,6,8,9,10,11,12,13,15,16,17,18,19,22,23,24,25,27
 Seq#:1; Xaa Pos. 28,29,30,31,32,34,35,36,37,38,39,40,41,42
 Seq#:2; Xaa Pos. 1,2,3,4,5,6,8,9,10,11,12,13,15,16,17,18,19,22,23,24,25,27
 Seq#:2; Xaa Pos. 28,29,30,31,32,34,35,36,37,38,39,40,41,42
 Seq#:3; Xaa Pos. 1,2,3,4,5,6,8,9,10,11,12,13,15,16,17,18,19,27,28,29,31,32
 Seq#:3; Xaa Pos. 33,34,35,36,37,38,39
 Seq#:4; Xaa Pos. 1,2,3,4,5,6,8,9,10,11,12,13,15,16,17,18,19,27,28,29,31,32
 Seq#:4; Xaa Pos. 33,34,35,36,37,38,39
 Seq#:5; Xaa Pos. 1,2,3,5,6,7,9,10,13,14,16,28,30,31,32,33,34
 Seq#:6; Xaa Pos. 5,14,26,31
 Seq#:7; Xaa Pos. 1,3,7,16,31,32,34
 Seq#:8; Xaa Pos. 1,2,4,10,19,31,34,36,37,39
 Seq#:9; Xaa Pos. 9,13,17
 Seq#:10; Xaa Pos. 2,3,10,12,18,26,32,33
 Seq#:11; Xaa Pos. 3,5,16,18,22,25,31
 Seq#:12; Xaa Pos. 1,5,8,11
 Seq#:13; Xaa Pos. 5,8,10,15,16,23
 Seq#:14; Xaa Pos. 4,9,12,13,17
 Seq#:15; Xaa Pos. 8,15,16
 Seq#:24; N Pos. 17
 Seq#:36; Xaa Pos. 3,7,8,14,18
 Seq#:37; Xaa Pos. 1
 Seq#:39; N Pos. 12
 Seq#:41; N Pos. 6,9,12,15,18,21,24
 Seq#:42; Xaa Pos. 14,26,31
 Seq#:43; Xaa Pos. 9,13
 Seq#:44; Xaa Pos. 2
 Seq#:45; Xaa Pos. 1,6,7,8,12,17,18,23

VERIFICATION SUMMARY

DATE: 02/13/2004

PATENT APPLICATION: US/10/647,519

TIME: 12:04:45

Input Set : A:\2314-269seq.txt

Output Set: N:\CRF4\02132004\J647519.raw

L:21 M:270 C: Current Application Number differs, Replaced Application Number
L:22 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:72 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0
M:341 Repeated in SeqNo=1
L:124 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0
M:341 Repeated in SeqNo=2
L:166 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
M:341 Repeated in SeqNo=3
L:208 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0
M:341 Repeated in SeqNo=4
L:250 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0
M:341 Repeated in SeqNo=5
L:274 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0
M:341 Repeated in SeqNo=6
L:298 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0
M:341 Repeated in SeqNo=7
L:322 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0
M:341 Repeated in SeqNo=8
L:344 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0
M:341 Repeated in SeqNo=9
L:365 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:0
M:341 Repeated in SeqNo=10
L:389 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:0
M:341 Repeated in SeqNo=11
L:409 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:0
L:433 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:0
M:341 Repeated in SeqNo=13
L:453 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:0
M:341 Repeated in SeqNo=14
L:473 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:0
L:734 M:258 W: Mandatory Feature missing, <223> Tag not found for SEQ ID#:24 ✓
L:734 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:0
L:1091 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36 after pos.:0
M:341 Repeated in SeqNo=36
L:1113 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:37 after pos.:0
L:1140 M:258 W: Mandatory Feature missing, <221> Tag not found for SEQ ID#:39 ✓
L:1140 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:39 ✓
L:1140 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:39 after pos.:0
L:1168 M:258 W: Mandatory Feature missing, <221> Tag not found for SEQ ID#:41 ✓
L:1168 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:41 ✓
L:1168 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41 after pos.:0
L:1184 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42 after pos.:0
M:341 Repeated in SeqNo=42
L:1206 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:43 after pos.:0
L:1224 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:44 after pos.:0
L:1241 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45 after pos.:0
M:341 Repeated in SeqNo=45